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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/556,668	11/15/2006	Mary, Ann Bator	19350-103323	8558
7590 03/25/2011				
Robin W Asher Clark Hill Suite 3500 500 Woodward Avenue Detroit, MI 48226-3435			EXAMINER CHENEVERT, PAUL A	
			ART UNIT 3612	PAPER NUMBER
			MAIL DATE 03/25/2011	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/556,668

Applicant(s)

BATOR ET AL.

Examiner

Paul A. Chenevert

Art Unit

3612

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTC-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2005 11 14
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because of the following minor informalities:
 - a. Reference number 12 should be changed to 20 in Figure 1 (see page 3, line 10).
 - b. The cutline A-A should be added to Figure 2 (see page 2, line 26).
 - c. Reference number 24 should be added to Figure 3 (see page 4, line 9).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. Page 4, line 10, "Figures 2 and 6" should be changed to "Figures 3 and 6".
 - b. Abstract, line 2, "disclosed" should be changed to "described".

Appropriate correction is required.

Claim Objections

3. Claims 10-18 are objected to because of the following informalities:
 - a. Claim 10 should depend from claim 9.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 & 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamaya (JP 57-172848 A; 23OCT82).

Hamaya discloses a bumper beam energy absorber for use with an automotive vehicle comprising a layer of cell panel (4) having interconnected closed loop cells defining an open cell

network, the open cell network comprising three different sized cells (5) positioned in five sections (upper, center, lower, left side, and right side) to absorb more energy in one section than another.

In regards to claim 9, the vehicle bumper system also comprises an impact beam (1) configured to be attached to a vehicle frame, a fascia (2) positioned to conceal the impact beam, and the energy absorber (4) is sandwiched between the impact beam and the fascia.

6. Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamagiwa (US 6,729,451 B2; 04MAY04).

Yamagiwa discloses a bumper beam energy absorber for use with an automotive vehicle comprising a layer of cell panel (2) having interconnected closed loop cells (23) defining an open cell network, the open cell network comprising three different sized cells positioned in five sections (center, inner ring, distal ring) to absorb more energy in one section than another.

In regards to claim 2, the energy absorber includes at least two layers of the cell panels.

In regards to claim 3, each of the open cell networks of each of the layers has at least two different sized cells positioned in at least two sections to absorb relatively more energy in one section than another.

In regards to claim 4, the positioning of the sections of the layers of cell panels cooperate to absorb energy.

In regards to claim 5, a reinforcing sheet material (3) is interposed between the layers of cell panels.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagiwa in view of Tokonabe et al. (US 6,739,104 B2; 21NOV02).

Yamagiwa discloses a bumper beam energy absorber for use with an automotive vehicle, as described above.

However, Yamagiwa does not expressly disclose that the layers of cell panels are enclosed with a reinforcing sheet material.

Tokonabe et al. disclose a layer of cell panel (50) having interconnected closed loop cells (51a) defining an open cell network; wherein the layers of cell panels are enclosed with a reinforcing sheet material (70).

Yamagiwa and Tokonabe et al. are analogous art because they are from the same field of endeavor, which is the honeycomb layered panel art.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Yamagiwa, to employ a reinforcing sheet material, as taught by Tokonabe et al. to stabilize the layers of cell panels.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagiwa, as modified, in view of Vismara (US 6,547,295 B2; 18APR02).

Yamagiwa, as modified, disclose a bumper beam energy absorber for use with an automotive vehicle, as described above.

However, Yamagiwa, as modified, do not expressly disclose that each of the cell panels are extruded.

Vismara discloses a bumper beam energy absorber for use with an automotive vehicle comprising a layer of extruded cell panel (10) having interconnected closed loop cells defining an open cell network.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Yamagiwa, as modified, to employ an extrusion manufacturing process, as taught by Vismara to provide other manufacturing choices.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagiwa, as twice modified, in view of Casse (US 4,165,113; 21AUG79).

Yamagiwa, as twice modified, disclose a bumper beam energy absorber for use with an automotive vehicle, as described above.

However, Yamagiwa, as twice modified, do not expressly disclose that the extruded cell panels has the at least two sections; wherein a first of the two sections has cells of a first predetermined size and wall thickness; and a second of the two sections has cells of a second predetermined size and wall thickness, less than the first predetermined size and wall thickness.

Casse discloses a layer of cell panel (3) having interconnected closed loop cells (1, 2) defining an open cell network; wherein the cell panels has the at least two sections (longitudinal edge and longitudinal central region); wherein a first of the two sections has cells (1) of a first predetermined size and wall thickness; and a second of the two sections has cells (2) of a second predetermined size and wall thickness, less than the first predetermined size and wall thickness.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Yamagiwa, as twice modified, to employ variable wall thickness and cell sizes, as taught by Casse to provide a controlled crumple zone.

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamaya in view of Straza et al. (US 3,888,531; 10JUN75).

Hamaya discloses a bumper beam energy absorber for use with an automotive vehicle, as described above and wherein the energy absorber is contoured to nest within the fascia.

However, Hamaya does not expressly disclose that the energy absorber is contoured to support the fascia.

Straza et al. disclose a bumper beam energy absorber for use with an automotive vehicle comprising a layer of cell panel (28) having interconnected closed loop cells (32) defining an

open cell network; wherein the energy absorber is contoured to nest within and support a fascia (14).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Hamaya, to employ a fascia supporting energy absorber, as taught by Straza et al. to reduce vibrations due to rough road conditions.

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamaya, as modified, in view of Vismara.

Hamaya, as modified, disclose a bumper beam energy absorber for use with an automotive vehicle, as described above.

However, Hamaya, as modified, do not expressly disclose that each of the cell panels are extruded.

Vismara discloses a bumper beam energy absorber for use with an automotive vehicle, as described above.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Hamaya, as modified, to employ an extrusion manufacturing process, as taught by Vismara to provide other manufacturing choices.

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamaya, as twice modified, in view of Casse.

Hamaya, as twice modified, disclose a bumper beam energy absorber for use with an automotive vehicle, as described above.

However, Hamaya, as twice modified, do not expressly disclose that the extruded cell panels has the at least two sections; wherein a first of the two sections has cells of a first predetermined size and wall thickness; and a second of the two sections has cells of a second predetermined size and wall thickness, less than the first predetermined size and wall thickness.

Casse discloses a layer of cell panel, as described above.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Hamaya, as twice modified, to employ variable wall thickness and cell sizes, as taught by Casse to provide a controlled crumple zone.

15. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamaya, as thrice modified, in view of Yamagiwa.

Hamaya, as thrice modified, disclose a bumper beam energy absorber for use with an automotive vehicle, as described above.

However, Hamaya, as thrice modified, do not expressly disclose that the energy absorber includes at least two layers of the cell panels; that each of the open cell networks of each of the layers has at least two different sized cells positioned in the at least two sections to absorb relatively more energy in one section than another; nor that a reinforcing sheet material is interposed between the layers of cell panels.

Yamagiwa discloses a bumper beam energy absorber for use with an automotive vehicle, as described above.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Hamaya, as thrice modified, to employ two layers of cell panels, as taught by Yamagiwa to provide a predictable crumple zone.

16. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamaya, as four times modified, in view of Tokonabe et al.

Hamaya, as four times modified, disclose a bumper beam energy absorber for use with an automotive vehicle, as described above.

However, Hamaya, as four times modified, do not expressly disclose that the layers of cell panels are enclosed with a reinforcing sheet material.

Tokonabe et al. disclose a layer of cell panel (50) having interconnected closed loop cells (51a) defining an open cell network; wherein the layers of cell panels are enclosed with a reinforcing sheet material (70).

Hamaya, as four times modified, and Tokonabe et al. are analogous art because they are from the same field of endeavor, which is the honeycomb layered panel art.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Hamaya, as four times modified, to employ a reinforcing sheet material, as taught by Tokonabe et al. to stabilize the layers of cell panels.

17. Claims 17 & 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamaya, as four times modified, in view of Sobel.

Hamaya, as four times modified, disclose a bumper beam energy absorber for use with an automotive vehicle, as described above.

However, Hamaya, as four times modified, do not expressly disclose that an outermost layer of cell panels is configured to collapse more readily than an inner layer of cell panels; nor wherein the outer most layer is adjacent the fascia.

Sobel discloses the vehicle bumper system also comprises an impact beam (1) configured to be attached to a vehicle frame, a fascia (2) positioned to conceal the impact beam, and the energy absorber (4) is sandwiched between the impact beam and the fascia; and wherein the layer of cell panels is configured to collapse more readily than an inner layer of cell panels; and wherein the outer most layer is adjacent the fascia.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Hamaya, as four times modified, to employ a reinforcing sheet material, as taught by Sobel to stabilize the layers of cell panels.

18. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamaya in view of Vismara and Straza et al.

Hamaya discloses method of manufacturing a bumper beam energy absorber for use with an automotive vehicle, as described above.

However Hamaya do not expressly disclose that each of the cell panels are extruded, nor that the energy absorber is contoured to support the fascia.

Vismara discloses a bumper beam energy absorber for use with an automotive vehicle, as described above.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Hamaya to employ an extrusion manufacturing process, as taught by Vismara to provide other manufacturing choices.

Straza et al. disclose a bumper beam energy absorber for use with an automotive vehicle comprising a layer of cell panel (28) having interconnected closed loop cells (32) defining an open cell network; wherein the energy absorber is contoured to nest within and support a fascia (14).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the bumper beam energy absorber of Hamaya, as modified, to employ a fascia supporting energy absorber, as taught by Straza et al. to reduce vibrations due to rough road conditions.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. Chenevert whose telephone number is (571)272-6657. The examiner can normally be reached on Mon-Fri (10:00-7:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn D. Dayoan can be reached on 571-272-6659. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GLENN DAYOAN/
Supervisory Patent Examiner, Art Unit 3612

Paul A. Chenevert
Examiner
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